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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,003

06/24/2005

Jonas Salomonson

43318-204695

5256

26694

7590

01/12/2009

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EXAMINER

NGUYEN, PHU HOANG

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

01/12/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/500,003	<b>Applicant(s)</b> SALOMONSON ET AL.	
	<b>Examiner</b> PHU H. NGUYEN	<b>Art Unit</b> 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9, 10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-10, 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Acknowledgement is made of Amendment received 9/16/2008. Claim 9 is currently amended. Claims 10, 12-19 are previously presented. Claims 1-8 and 11 are cancelled.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amended claim 9 contains the phrase "applying a suspension comprising glass material" however it was originally described as "applying a suspension of glass material". If the applicant believes the specification provides support for this amended phrase, the applicant is requested to point out the page(s) and line(s) of the specification that shows such support.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-10 and 11-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 9 recites the limitation "the layer of particles" in lines 9-10 of the instant claim 9. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art Nielsen (WO 01/70128 A1).

Regarding claim 9, Nielsen discloses a method of making artificial dental bridges, comprising:

prior to carrying out heat treating

applying a suspension comprising aluminum oxide particles (Abstract) to densely sintered high strength ceramic individual bridge parts;

drying the suspension particles to form a layer of particles;

applying a suspension of glass material to the layer of particles; and

heat treating to a sufficient temperature and for a sufficient time so that the glass material melts and penetrated completely through the joint that happens after carrying out applying a suspension to bridge parts drying the suspension (paragraph 9 of the Specification of Nielsen and paragraph 12 of the Specification of the instant application).

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Regarding claim 10, Nielson discloses the suspension comprising particles comprises particles, dispersant for the particles, binder for the particles, and a solvent (Specification of the instant application, paragraph 12).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art Nielsen (WO 01/70128 A1) as applied to claims 9-11 above, and further in view of applicant's admitted prior art Salomonson (WO 9913795).

Nielsen does not expressly disclose the properties of the individual bridges parts and the glass material. However these properties are well known and desired in the dental bridge art (to avoid distortion of the bridge, obtain a good esthetics and optimal fit) as shown by Salomonson (claims 2-8 and page 5, line 2-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the desired properties for the individual bridges parts and the glass material for the advantages taught by Salomonson in the method taught by Nielsen.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art Nielsen (WO 01/70128 A1) as applied to claims 9-11 above, and further in view Scherer (U.S Patent No. 4574063). Nielsen does not expressly disclose that particles in the layer of particles are large enough such that

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drying stresses on removal of the solvent do not lead to catastrophic failure of the dental bridge. Scherer discloses the cracking problem is avoided with the relatively large particle sizes of suspended oxides (column 1, line 53-59). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use particles large enough in the method taught by Nielsen to avoid cracking as taught by Scherer.

### ***Response to Arguments***

Applicant's arguments filed 9/16/2008 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a method that includes a single heat treatment) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant essentially argues that Nielsen does not disclose carrying out applying a suspension to bridge parts drying the suspension, and applying a suspension of glass material to the layer of particles prior to heat treatment. Upon further consideration, the Examiner found that one can interpret the amended claim 9 with the phrase "comprising prior to carrying out a one step heat treatment" to not limited to consisting of only a single heat treating. Therefore, as long as a reference teaches a heat treating step after carrying out applying a suspension to bridge parts drying the suspension, and applying

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a suspension of glass material to the layer of particles prior to heat treatment; it would read on the invention as recited in the instant claim 1.

Applicant also argues that Nielsen does not disclose that the particles are entirely surrounded by the glass after the heat treatment. In the Abstract and paragraph 9 of the Specification of Nielsen, Nielsen discloses the melted glass material infiltrate the loose sintering particles in the heating treatment. Therefore, the melted glass material inherently surrounded the particles entirely.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C. Tucker whose telephone number is 571-272-1095. The examiner can normally be reached on Monday - Friday, Flexible schedule.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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P.N 12/30/2008

/Philip C Tucker/  
Supervisory Patent Examiner, Art Unit 1791